

THE DEADLINE

I

Ruskin Manufacturing has guaranteed Parker Products that it will deliver the complete order of small machines by the 10th of the month, a Friday. Parker had already extended its deadline once. This time, it insists, the date must be met. Tim Vinson, head of quality control, had been confident the deadline would be met. But on the 8th he learns that a new component of the machines is in short supply. He thinks of several options:

- 1) Approve breaking up and regrinding the remaining supply of the old component that was being replaced. This could probably be accomplished in time, but the speed at which it would have to be done raises concerns about impurities in the process.
- 2) Approve using the old component in place of the new one. The product would still function well, and it would be unlikely that Parker would ever detect the difference. Although Parker would not be getting exactly what it ordered, the product would meet minimal safety and durability standards.
- 3) Discuss the problem with the design engineer and see what he suggests.

Which of these options would you recommend? Can you think of any other options that might be preferable?

II

Tim decides to consult with Chuck Davidson, the chief design engineer for this product. Chuck says, "I don't have a good answer for you. There's no time to come up with a completely satisfactory alternative. You could regrind, but given the time frame you might get a lot of impurities. Or you could just use the old components. But I'm not going to advise either of those. I don't want this hanging over my head. Maybe you should call Arnold."

Arnold Peterson is Vice President of Product Engineering. Years ago, like Tim Vinson, Arnold served as head of quality control. Tim is somewhat uneasy about calling Arnold for two reasons. First, Tim feels responsible for not seeing the problem earlier, and he is reluctant to admit failure to the Vice President of Product Engineering. Second, he wonders if Arnold would really want to be bothered by something like this. He might simply tell Tim that the problem is his to solve -- somehow. Still, Tim is not comfortable with the idea of just resolving the problem by himself.

What should Tim do next?

III (Version 1)

Hesitant to take matters in his own hands, Tim calls Arnold.

Consider three possible scenarios:

- a) Arnold says, "You're supposed to take care of these things yourself, Tim. I don't want to hear about stuff like this. Just meet the deadline. I used to have to deal with this kind of problem all the time. Management made it **very** clear to me that it doesn't want bad news--it wants results." What should Tim do now?
- b) Arnold says, "Look Tim, you haven't been at this very long. Parker doesn't want to hear about this. If

something goes wrong with the product, they don't want to have to tell their customers that they knew about the problem. They'll want to point the finger at us. They also made it very clear that we've had it if we don't meet the deadline this time. I don't like this kind of situation, but we've got to take a little risk here. Just get the stuff over there somehow." What should Tim do now?

c) Tim learns that Arnold is out of town until next week and cannot be reached. What should Tim do now?

III (Version 2)

Tim decides not to call Arnold. He thinks Arnold would not want to be bothered by this problem and would simply tell Tim that it is up to him to resolve it in such a way that a major customer is not disappointed. So, he approves substituting the old component in place of the new one.

Several weeks later Arnold learns from an internal source that Tim substituted the old component. He calls Tim into his office and asks for an explanation. What should Tim say?

IV

[Following III (Version 1)]

Tim approves substituting the old component, and the order is met on time. However, several months later Parker returns to Ruskin several of the machines from the order Tim completed. Parker complains that the machines in this part of the order are not functioning as efficiently as the others. When a Parker technician disassembled several of the less efficient machines and compared them with one that was working well, she discovered that each of the less efficient ones has a key component that differs from the well functioning machine. Parker asks for an explanation. Word now comes to Tim that he is expected to appear at a meeting with Arnold Peterson and a Parker representative. What should he be prepared to say at the meeting?

V

Suppose Tim substitutes the old component for the new one, and neither Parker nor anyone else outside of Ruskin ever finds out. All parties are satisfied. Does it follow that Tim acted appropriately?

COMMENTARIES

John B. Dilworth

To begin, here are some specific questions concerning the case which a corporate lawyer probably would want to raise. They concern possibly minor details in the contract, which nevertheless could have a significant impact on the questions about what Tim Vinson (Head of Quality Control) should do. Given that this case centers around a specific agreement which Ruskin Manufacturing has with Parker Products, which sets out the contractual obligations and conditions of each party, it seems only reasonable that we should initially get clear on exactly what those obligations and conditions are.

First, we are told informally that the machines include a new component which is a replacement for an old component. We are also told that if the old component were used in the new machine, Parker would not be getting exactly what it ordered. It follows from the latter that some part other than the old part must be used in the new machines. However, the critical question of exactly what counts as a 'new component' is not yet settled.

The 'standard' new component is in short supply; could Tim Vinson still satisfy the letter (or perhaps even the spirit) of the contract if he selects case option #1, of breaking up and regrinding old components and using them to manufacture substitute new components? Answer: it almost entirely depends on the specific language of the contract. (State and federal laws governing contracts may make some difference too.)

If the contract defines 'new component' so that only the standard new component would satisfy it, or if a quality clause is included so that the re-ground parts would not qualify, then Tim is out of luck, and the moral quandaries laid out in the case apply with full force.

However, if Ruskin has been given some discretion in the design and manufacture of the new part, use of the substitute new part may be contractually permissible according to the letter of the contract, even though Parker might complain that its understanding of the agreement had been violated if they ever find out about the substituted parts. But arguably Ruskin Manufacturing and Tim Vinson should pick up little blame for this, because Ruskin could just as well blame themselves for hiring mediocre lawyers who had left loopholes in the contract.

So if things go this way, Tim is for practical purposes 'home free'. This well illustrates that even the tiniest 'nit-picking' of a contract can pay off handsomely in terms of defusing or avoiding moral problems.

Certainly this approach can never give the last word on any moral issue in business even when it can be used, but it would be foolish not to explore all of one's contractually permitted actions in a problematic situation. There is nothing immoral in successfully preventing a business problem from escalating into a moral problem.

Joseph Ellin

I

Ruskin Manufacturing has made a commitment which it evidently cannot meet. A component is in short supply and Ruskin cannot meet its deadline to deliver completed machines to Parker Products by the 10th of the month. The problem falls into the lap of Tim Vinson, head of quality control. None of the options he thinks of seem particularly appealing.

No explanation is given of why the component is in short supply, or why Tim doesn't find this out until the 8th, or whether he could or should have done something to assure that, short supply or not, his share of the components would arrive on time, except that he is said to "feel responsible" for not seeing the problem earlier. It is possible that he or someone has been negligent somewhere along the line; but it seems likely that the supplier is at fault for failing to deliver the components, which suggests that Ruskin has a lawsuit against the supplier and thus a means of shifting any penalty it suffers for failing to make timely delivery to Parker.

The case does not state exactly what is at stake for either Ruskin or Parker if Ruskin fails to deliver as scheduled. If there is only a money loss for both, Ruskin may be off the hook by shifting this to the supplier. This needs to be determined before any drastic action is taken by anyone. So if Tim doesn't know, he ought to find out first thing. First he ought to consult with the person in the company who's familiar with Parker and with Ruskin's contracts with both Parker and the supplier. This might be Arnold Peterson, or it might be someone else. If Tim doesn't have access to that person (how big a company is Ruskin, anyway?), he might find out who does and take it from there. The first requirement in solving a problem is to identify just what the problem is. As quality control officer, Tim would not seem to know enough to be able to reach a good solution on his own,

unless he's very lucky!

Another option would be for Tim to call Parker and explain how things stand, and see what they say. Evidently he does not consider doing this, but the case does not explain why he doesn't. Perhaps Tim is not authorized to consult with Ruskin's customers. Or perhaps he thinks that's not his job. In that case, he should find out who is, because it is possible that one of the options Tim is considering, either (1) or (2), might satisfy Parker, who might not be so concerned with impurities, or with getting new components (option 2) when old components would meet minimal standards. Under this condition there is the possibility that Parker might want to renegotiate the contract or invoke a penalty, if the contract specifies such. Presumably Tim isn't the person in Ruskin who would know about this. Another possibility is that Parker might simply prefer to wait until the specified components arrive. Or perhaps delivery with old components can be made now, and the new components installed at the site when they arrive. The problem is Parker's as much as Ruskin's, since they will either get their machines late, or receive machines which are not quite what they contracted for; and the decision between these choices should be up to them. Parker undoubtedly will not be happy with the news that the components haven't arrived, but they foreseeably will be more unhappy if they receive machines which aren't what they ordered. The point is that Tim considers two options which would circumvent Parker and in effect deceive it about what it's getting. This is not only dishonest but holds out all sorts of promises of future trouble. Better to admit your failure, even if you're not really at fault--the lawyers can argue over this later--than try to cover it up.

But assume that Tim knows, suspects, or discovers that Ruskin would have big problems if it fails to deliver the precisely specified machines at the time guaranteed. So he is reluctant to contact Parker without first trying to improvise something. His obvious next step is to consult with the design engineer, to assure himself that there is no remedy other than (1) and (2). Not being a design engineer himself, evidently, he needs to search for a third solution before acting. To act on his own without enlisting engineering help seems reckless.

II

Tim does the responsible thing and consults with the chief engineer, who ducks the problem and passes the buck back to Tim. Chuck should lose a few points for surly non-cooperativeness. However he seems to have confirmed that there is no third engineering option, which is what Tim wanted to find out.

There is still the option of contacting Parker. Tim can either take action himself or inform the next level up, which is Vice President Arnold Peterson. Perhaps Arnold will not be happy to have this brought to his attention; evidently there is some reason to suspect that officers at Ruskin company prefer not to know about problems in their company. But any decision Tim makes commits the company to a line of action which is potentially damaging, might involve a law suit, loss of customer confidence, etc. So he has to decide whether he wants to take this responsibility himself, or whether it properly belongs at a higher level. Tim ought to realize that he does not know enough about what is really at stake for him to make the decision himself whether or not to contact Parker. If in fact Ruskin is protected in its contract with its supplier, Arnold might know this or be able to find out. An assessment of the risk needs to be made by someone in a better position than Tim. So however uncomfortable he feels, Tim really has no choice but to consult with someone else at Ruskin, and this seems to be Arnold.

III (Version 1)

Tim calls Arnold. (a) Arnold's stupid and irresponsible reply gives Tim the green light to do whatever he wants, although "just meet the deadline" presumably means he is not to call Parker. Arnold doesn't tell Tim just what is

at stake for Ruskin if the deadline is not met, but his reply certainly suggests that the stakes are higher than Ruskin wants to risk. Thus Tim is effectively excluded from calling Parker. Arnold has in effect committed Ruskin to a conspiracy to deceive Parker and violate its contract. Does Tim want to go along with this and choose one of the 'redesign' options, or does he want to go around Arnold and try and find someone with more sense? The uncooperativeness of both Chuck and Arnold makes it seem as if Ruskin might be a company in which no one has any sense! (Tim might be part of this, since he never considered talking to Parker in the first place). In that case, Tim had best go along with the bosses, unless he is interested in looking for a job elsewhere.

Since option (2) involves least risk to Parker, if Tim isn't interested in challenging Arnold, he should opt for this. In effect, Arnold has ordered him to do so. However Tim cannot feel he is off the hook because of the vague way in which Arnold put his instructions. Tim could still do the right thing and contact Parker himself; he would not be countermanding a clear and direct order because Arnold only told him to 'take care' of the problem without consulting management.

Version (b). In this scenario, Arnold is much more forthcoming and gives Tim a clear order, and explains to him the reason for it. Tim now knows there is a lot at stake. Arnold accepts responsibility for faking the delivery to Parker. So from one point of view, Tim is definitely off the hook. He has made his report to management and been told to go ahead and fill the order despite not having the correct components. Arnold says he is unhappy with what they have to do, but he evidently doesn't see an alternative that would protect the company. The machines to be delivered, under option (2), meet minimum standards and will function well. So maybe it's reasonable to hope that Parker's customers will not lose out. If no great issues of safety or reliability are involved, Tim might very well conclude that he is not obliged to go beyond his position in the company and countermand direct orders, especially when Ruskin seems to have a lot at stake in making the delivery on schedule.

But Arnold's reason raises some very interesting ethical points. Should Ruskin as a company and Tim individually go along with Parker? In Arnold's opinion (how he knows this, he doesn't say), Parker is playing a very cute game with its own customers. They are willing to pass along inferior machines provided the customers don't know and can't blame them, Parker, if they do find out. Parker would seem to be guilty of culpable ignorance: deliberately overlooking a possible problem in order to pretend that you aren't responsible for it. This is unethical on Parker's part; but does Ruskin have an obligation to force Parker to act ethically by telling them about the problem, even if they don't want to know about it? I think it depends on just how serious a problem it is. If Parker's customers were to have serious problems with the inferior machines, then Ruskin would be culpable for not informing Parker so that Parker could inform its customers. In this case, the substitutes meet minimal safety standards, and the fact that the substitution is probably going to be undetected indicates that the substitute machines function just as well as the ordered ones. The customers are harmed only by being deceived, and not in any other way. So assuming Arnold is correct in implying that relations between Ruskin and Parker would be soured if Ruskin informed Parker of the problem, Tim and Ruskin are probably justified in not doing so. It might even be argued that they are rather self-sacrificing in this course, since they would be protecting Parker by assuming all liability should Parker's customers find out about the switch and complain. One hopes that Parker appreciates this nobility on Ruskin's part.

Version (c). In this version, Arnold is out of town and 'cannot be reached.' Has Arnold left the planet? If so, who's doing his job while he's out in space? Since it's important that Tim consult with someone, Tim has the duty to find Arnold or someone else and get the advice and information he needs.

III (Version 2)

Tim does not call Arnold, because he thinks Arnold does not want to be bothered. Not calling Arnold is a mistake for the reasons given above, and Tim should have to expect to answer to Arnold for it. Why does no one in Ruskin Manufacturing want to accept responsibility for tough decisions? Tim might point out to Arnold the self-defeating corporate culture of 'don't bother the boss.' Since Arnold is a VP he presumably contributes to this. So he can't back-track now and complain that Tim didn't bring him this problem.

However Tim might not find it expedient to say this. So he has little choice but to defend himself as best he can: that the components didn't arrive and he did the best he could. That the chief engineer informed him that there was no option anyway. That he considered informing Parker but didn't consider it wise to do so. That it is not too late to tell Parker now, if that's what Arnold wants, and offer to install the new components as soon as they arrive.

IV

The chickens come home to roost as Tim and Ruskin's luck turns bad. Tim has substituted the old components but the machines don't function as well as they are supposed to and Parker has discovered the substitution. Honesty might have proved the better policy. At the meeting to explain things to Parker, he has to put the best face on it: the components didn't come so he substituted something which ought to have worked just as well. Ruskin naturally will pay for damage, lost production, or whatever the loss to Parker has been. He had better ask to talk first to Arnold to make sure they have their signals together before seeing the Parker person.

V

Would it follow that Tim had acted appropriately if Parker never found out? No, it doesn't follow that Tim acted appropriately. It doesn't follow that he didn't either. Nothing follows from the fact that a questionable act is not discovered. Whether or not he acted properly follows from what's been said above. Summary: evidently Ruskin's best course would have been to contact Parker and so Tim's course was to try to get an officer of Ruskin to authorize this. However possibly not contacting Parker could be excused if the stakes for Ruskin are sufficiently high and if the damage to Parker is sufficiently trivial. But Ruskin has to be prepared to pay the penalty for this course of action, should Parker find out about it.

Lea Stewart

Tim Vinson has a problem. He has promised to fill an order for small machines by Friday, and he learns on Wednesday that he does not have a sufficient supply of a new component for the machines. The customer insists that the deadline be met. Tim thinks of three options: breaking up and regrinding an old component, replacing the new component with an old one, or talking to the design engineer. The first option concerns him because he is not sure that the process can be done without introducing impurities. He believes the second option could meet minimal safety and durability standards even though it is not what the customer ordered.

The first two options listed by Tim have clear ethical implications. The first option involves using a process that may introduce impurities. This could pose a safety hazard. Tim is right to dismiss this idea. Although the second option apparently does not pose the same type of safety problem, it is clearly not what the customer contracted for. Is it ethical to fill an order that does not meet the customer's reasonable expectations?

In this case, Tim chooses a less expedient but probably more ethical approach. He speaks to the design engineer about the problem. Unfortunately, the design engineer cannot think of any creative solutions to the problem, and

he is unwilling to take responsibility for the outcome of either of the first two solutions. The design engineer suggests that Tim talk with the Vice President of Product Engineering, Arnold Peterson.

Tim is reluctant to talk with Arnold because he feels responsible for not knowing about the problem earlier. This is a typical problem in organizations. Employees are reluctant to pass "bad news" up the organizational hierarchy. They are unwilling to tell their supervisors about information that might have negative consequences for their jobs. Unfortunately, because of this reluctance, managers sometimes do not get the information they need to make good decisions.

If Arnold is unwilling to listen to Tim's problems and tells him that he has to handle the situation himself, Arnold has just reinforced poor communication practices in his organization. He is encouraging his employees to hide information from him if it is bad news. Sometimes, however, a manager needs to know all the bad news in order to make good decisions. Arnold needs to know why Tim cannot get the components that he needs to finish his job so that the situation can be avoided in the future. Arnold needs to know if there is a problem in his organization or if the problem is with suppliers. If he doesn't know about the problem, it can't be prevented in the future.

Arnold also has cut off lines of communication to the customer. If he tells Tim that "Parker doesn't want to hear about this," he assumes that the customer is unwilling to deal with problems as they occur. He is assuming that the customer would rather have sub-standard machines than be told the truth. This assumes that the customer has rather low standards for quality.

Tim's assumption that Arnold would not want to be bothered by this problem is a clear indication of a poor communication climate in this organization. Many companies would feel that it is Arnold's job to be bothered by problems. If management cannot be bothered by problems, who will solve them?

Because of his unwillingness to speak with Arnold, Tim substitutes an old component in the new machine. From an ethical standpoint, it really doesn't matter if Arnold or the customer discovers the substitution. In fact, it doesn't really matter if the substitution is never discovered. Tim has acted unethically and perhaps illegally. He has substituted a part and delivered a machine that does not meet the company's expectations for a totally new machine. The customer has paid for a new machine, but has received machine with an old and discarded component. Presumably there was a reason for the new component, and the customer had the expectation that the machines would be the most up-to-date model. Thus, there is no excuse for cutting corners and using an old part.

Some ethical theorists would say that the end justifies the means. In other words, if the machines worked satisfactorily with the old component, there would be no harm done. You might agree with this analysis, but in this case there was no way of testing this assumption until after the machines were delivered. Do the ends justify the means if you are not exactly sure what the ends will be?

Part of the difficulty in this case seems to be the reluctance of anyone to talk with a representative of the customer. Granted, relations between Ruskin Manufacturing and Parker Products are not totally positive since Ruskin has already missed one deadline. Nevertheless, Parker Products might be willing to take the machines with the old component for a slight discount. Perhaps Tim could speak with a member of the sales staff to see if this option is possible.

This case is a clear example of how a poor organizational climate can contribute to unethical decision making.

Tim makes a poor choice because he feels that his supervisor is not open to hearing negative information. Perhaps if Arnold had worked harder to create a more positive communication climate in his organization Tim would not have been faced with this dilemma.

Michael Rabins

This is a tough situation for Tim Vinson to be in and it appears that he is not getting appropriate guidance from either Chuck Davidson, the chief design engineer for the product nor Arnold Peterson, Ruskin's Vice President of Product Engineering. In the discussion that follows it is assumed that since "minimal safety and durability standards" would be met that there is therefore no risk to public safety involved. What is of direct concern here is the reputation of Ruskin Manufacturing as a company with integrity and Tim Vinson's reputation as head of quality control.

The NSPE code of ethics says in "Professional Obligation" number III-3 that "Engineers shall avoid all conduct or practice which is likely to discredit the profession or deceive the public." Incidentally, regarding this quotation, many would be comfortable with substituting the word "Companies" for "Engineers" at the start of the statement. The reasoning is that the actions of companies are really the actions of individuals working for that company, so the strictures against individual actions are interchangeable with strictures against the company. In that light, Chuck Davidson and Arnold Peterson are just as culpable as Tim Vinson if they fail to support Tim in the appropriate way, especially when subsequent events prove to be negative.

Although we can not possibly predict with precision the consequences of our actions as professionals, we can certainly anticipate some likely scenarios. Perhaps the most serious outcome of Tim regrinding the remaining supply of the old component (the situation in phase I-1) is phase IV of the case where Tim has to subsequently meet with Arnold Peterson and a Parker representative to explain why several of the machines had to be returned because the part in question did not perform up to expectations. At this point Tim can dig his hole deeper by playing dumb and lying, or confess that he (or he with Chuck Davidson's support) earlier cut some corners to meet the deadline. The most likely outcome of this meeting will be Tim's forced resignation if he confesses, or his lack of future credibility as head of quality control if he lies. In either case he stands guilty of violating the third "Fundamental Canon" of the NSPE code of ethics, "Issue public statements only in an objective and truthful manner."

If Vice-President Arnold learns of Tim's substituting the old component in place of the new one prior to any complaints from Parker and calls Tim into his office to explain (phase III-version 2 of the case), Tim is just as equally on the spot as if Parker had complained. Tim has the same two options as in the previous paragraph; a lose-lose situation.

In version V, it would appear that Tim has gotten away with the substitution because "neither Parker nor anyone else outside of Ruskin ever finds out." Even here there is a lingering problem. Tim himself knows what he did and in all likelihood so do a number of the assembly line workers at Ruskin who had to regrind the material and substitute the part. It is problematical whether Tim's colleagues and subordinates will ever feel the same about him as head of quality control at Ruskin. One is reminded of the quality controller in the "Truesteel Affair" Canadian TV tape who lost the confidence of all his coworkers because he missed catching a vitally important assembly error. Once the word leaks out that a quality controller has not exercised prudent caution, that controller's reputation is irrevocably damaged.

It would seem that there are at least two other options that may be open to Tim. First, when initially discussing

the situation with either Chuck Davidson or Arnold Peterson, Tim could suggest getting Parker involved early on the decision of what to do about meeting the deadline. For example, Tim could suggest that Parker be offered four options:

- i) Accept the machine with the old components ground up to produce replacements (albeit some potentially impure parts) for the ones in short supply (version I-1 but with notification to Parker.)
- ii) Accept the machine with the old components in place of the new one (version III-2, but with notification to Parker).
- iii) Accept the machines, correctly made, but late; perhaps with some negotiated penalty.
- iv) Sever the contractual relation between Ruskin and Parker.

What is at risk here is losing Parker's business. What is gained is informed consent by Parker and the absence of any deceit or subterfuge. If, as Arnold says, "They (Parker) also made it very clear that we've (Ruskin) had it if we don't meet the deadline this time", perhaps that is the price that must be paid for maintaining professional standards. Indeed, if Parker cancels the contract Tim may still be asked to resign, but at least he is not under a cloud. Also, Ruskin in this scenario maintains its integrity and its reputation for being professionally responsible.

There is one final option available to Tim that is not mentioned in this case. If, after making his initial mistake in not catching the problem earlier, Tim feels that the support he is getting from Chuck Davidson or Arnold Peterson is unsatisfactory, he can resign then and there. There are many jobs in many locales, but each of us has only one chance at establishing our own character and integrity. In this regard, let me close with a personal anecdote. I used this case (with permission) on a midterm examination in an "Ethics and Engineering" elective course I taught recently. After the exam, one of the better students in the class came up to me and complemented me on the reality of the question. When I asked him why he thought so, he replied that a similar situation occurred on the last job he had. When I asked him what he did in the circumstance, he replied, "I'm a full-time student now, aren't I?"